

# ***Building is also a verb***

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## **Abstract**

Architecture is about buildings?

Should schools of architecture be involved with learning to build? Do we need to clarify what we mean by 'building'?

The RIBA/ARB criteria uses terms such as 'understanding', 'Knowledge', 'theoretical concepts', and 'conceptualisation' - an academicisation firmly within the world of the head, not the hand. 'Building' as practiced in the validated Studio Project is born of academic vagueness and strives for resolution. Whereas a 'building' starts its life as a product of control (Planning, speculation, legislation, safety, budget, ego), yet when complete achieves vagueness in terms of how it is understood, used, adapted and absorbed into place.

How can teaching address this mismatch between academy and profession, between name and action?

Two case studies from the UEL construction programme illustrate the tactical use of control and variety to demonstrate that the reality of building can only be experienced by building reality.

## **1 Determining the 'vague'**

Architecture is about buildings? Is this an assumption to be challenged? At a time when writing architecture, narrative architecture, the architecture of film, of media, of programming, of 'Auto Poesis' are taking architecture into other, less physical territories, should schools of architecture be involved with learning to build?

Let us look at the role of building in architectural education.

Architecture is a discipline within academia – we don't learn on the job anymore.

The RIBA/ARB joint criteria [1] is about ensuring professional standards, but is inevitably about standards of education, and that education is set within an academic

'higher education' framework of expectation and delivery. Do the requirements of academia impact on the professionalism of architects, and what is the effect of architecture being 'academic'?

The Joint Criteria are a form of evidence of this effect, as they attempt to write in a comprehensive fashion the skill-set required by the profession that needs to be evidenced at three separate stages of educational progression.

Care has been taken to use terms such as 'have the ability to' in order to have students demonstrate their capacity to get it right even if they don't produce exhaustive proof, and throughout the General Criteria (for RIBA parts 1 and 2) the words 'understanding', 'understanding of', 'Knowledge of', 'theoretical concepts', and 'conceptualisation' form an academic backdrop to the endeavour. These words and phrases attempt to negotiate the fact that no-one can comprehensively demonstrate everything, whilst simultaneously registering that all these criteria are essential. The words themselves are intellectual and set the undertaking firmly within the world of the head, not the hand. The impact of working within and for academia is complete. Words like 'experience', 'intuition', 'craft', 'make' are not on this agenda, for not only do they buck the academic trend, they importantly require schools of architecture to be able to deliver hand as well as head.

I Believe the criteria do not enter the world of making for two reasons that lie behind the same concept - PLURALITY. The UK architectural

education brand is distinct for its 'plurality'. This is a condition highly valued by the RIBA, and globally sets UK architecture apart from other countries with more homogenous teaching structures. The astute wording of the criteria provides space for schools to deliver on the Criteria and Attributes without specifying how. To discuss making as a requirement would impinge on the right to 'Plurality'.

Secondly, the place of architecture schools within University structures, with the odd private exception, brings a reality to delivery that actively restricts how schools can undertake their teaching. The RIBA are clearly aware that the 'plurality' that is desirable for ideological reasons is essential for pragmatic reasons also – how many schools maintain workshops in the face of cut budgets, estates management and health and safety requirements? So having Criteria that allow for diverse teaching structures is both ideologically ambitious and dirtily pragmatic (in itself almost a definition of what an architect ought to be capable of).

However, while the careful use of academic and intellectual wording allows for schools to in principle balance the hand and the head, the lack of requirement to do so makes the 'academicisation' of architectural education that much easier/cheaper and more inevitable. The presentation of knowledge, the ability to evidence 'understanding' without building is encapsulated in Graduate attribute GA2.2 – "...have the ability to evaluate and apply a comprehensive range of visual, oral and written media to test, analyse, critically appraise and explain

design proposals". An architecture of the eye and the word.

This is not a critique of the Criteria, but within the context of discussing of 'Live Projects', the scarcity of the use of such projects in schools of architecture clearly stems from somewhere.

The Criteria describe a design process through prescribing a series of pinchpoints, requirements of awareness of that process but crucially leaving open the origin and purpose of the work, and where and with whom the project engages.

These key omissions enable 'plurality', but vagueness at these points in the design process allows education to become the inverse of practice, where precision in understanding the detail of the needs of others is paramount, and sets in motion the potential for the design process itself to achieve complete self-referentiality. "...better results were obtained when the problematics of site and user were omitted" was a comment by a respected academic in conversation with the author that seemed to sum up the situation.

What is the effect of the vagueness allowable by the Joint Criteria?

A former tutor of mine asserted at a recent conference on 'Writing Architecture' that text is effectively an un-built work of architecture, and that un-built works of architecture can be as powerful as the built - additionally that they were easier for people to 'understand' than the realised building. The vagueness within the criteria concerning the purpose and meaning of an architectural project allows for an academic position that

redefines architectural legibility as more likely in text than in building.

The term 'understood' needs clarification at this point, before we lose buildings altogether. By 'understanding' in the academic sense do we mean that the correct interpretation is made? Do we, as architects require that the correct meaning - the meaning we assign as originators, is what needs to be comprehended? What happens if the wrong meaning is interpreted? Are we, as architects running the risk of being 'misunderstood'?

In the Academy, the control of meaning is the foundation of the work. How important is the 'control' of meaning in architecture?

Architecture is complex. According to Stafford Beer's definition [2], its practice could be said to contain too much 'requisite variety' that requires attenuation to bring it to a manageable state. As Beer himself explained in 'Designing Freedom', key to this attenuation is where we limit variety - before we make decisions, or as part of making decisions. Clearly in our example, the act of writing has complexity just as building does, but the core difference is in the limitation of complexity to intellectual interpretation. A building requires both intellectual and phenomenological interpretation, as well as issues of function, performance, lifecycle, and it operates contextually in a way that ideas simply cannot. The architect cannot hope to control so many factors when building, so does 'building' (verb) mean an inevitable loss of control?

The life of a building (noun) touches the lives of those who interact with it, lives too numerous to record, with interpretations of that building too personal or too ephemeral to manage. However a building starts its life controlled, a product of variety attenuation (planning policy, property prices, speculation and legislation), and of management (safety, budget, team, ego and information), yet ironically a building ultimately achieves complete vagueness in terms of how it is understood, used, adapted and absorbed into 'place'. So building (verb) born of control, allows the building (noun) to ultimately escape to the vague through a life of use and abuse.

The birth of an student architecture project, defined in the Joint Criteria could be text, film, building design or Voronoi diagram, and is the inverse of a building - it begins within criteria that allows for vagueness, a defined set of control devices ensure it attains, more or less convincingly the control points, and a determined, compliant 'understood' outcome is achieved. We can simulate the vagueness of a real building at the end of the portfolio, but it is illusory because the processing of variety is contrived. A surrealist game of 'exquisite corpse' is not a product of the subconscious, but of the surrealists around the table sharing a pen.

So, if academic architecture is an inverted 'representation' of building, how can this be addressed?

## **2 Is a 'live project' what is required?**

I have explored issues of architectural education in relation to aspects of academic control, and how such

control devices could be said to set up the structures we teach and learn within. My original point, critical to any discussion of 'Live Projects', is about the link between architectural education and building.

If we are to go beyond the academic teaching environment because the separation between head and hand is age old and discredited, firstly we need to articulate the process by which we can do this – so do we just 'build'?

Simply building a project one designs within the academy accomplishes the manual dexterity and material evaluation required of stable construction, we hope. The understanding of technical limitations of materials and their manipulation delivers invaluable insights into performance, durability, effective design detailing and judgement which are core to constructing places for people. However the vagueness at the inception of the design project establishes the starting point for the building task that requires so much self definition that working out a convincing set of criteria, such that a properly resolved built piece can result, is highly unlikely within an academic calendar.

If we adopt another architects design to short circuit the student's intellectual prevarication, we can construct a previous example - say, build a 1:5 of the Farnsworth House? Or we could set new and unchallenged criteria that initiate a built study, but inevitably these tasks cannot provide genuine determinants that really challenge developmental and constructional processes. Construction with materials at full

scale is a valuable introduction to the stuff which architects refer to and specify in a buildings realisation, but really what is the value of getting covered in cement for a week when you supposedly have BIM? How or indeed why go through the charade of spending a month making a scarf joint that a decent carpenter could execute in half an hour? We could claim with justification that simply building things has an experiential value, but only up to a point, it is labour in lieu of, not as well as, critical thinking.

So, is a 'Live Project' what is required?

Clearly Live projects are live because they are about building, yes? Not necessarily. Strictly speaking if we accept vagueness as inevitable, then 'Live' may mean simply mean 'engaging with external agencies outside the academy'. This in itself acknowledges the benefits of dispelling vagueness in education by looking beyond the academy at the start of the design process, but the 'feasibility study' does not complete the cycle of architectural design, and we are not yet approaching the specific value of learning architecture by building. Drawing as an output remains untested by events, either during or after construction - they may precisely define ideas, but the accuracy of those ideas - their ability to be 'right' will never be known. Precision and accuracy are different, and need to be brought together.

In truth, the reality of building can only be experienced by building reality. This clearly disadvantages the majority of image driven schools, but is my conclusion.

Two case studies from this academic year offer very different antidotes to vagueness, yet provide very similar structures of experience for the students involved. It was only following completion that it became apparent how two ostensibly different exercises contained what could be termed 'essential' live project attributes: necessity, negotiation and economy.

### 3 Case study: 'Port Harcourt'

Context: Article 25 are engaged with an informal settlement – Port Harcourt, on the banks of the Niger Delta in Africa, supporting the residents claim to be left in peace by the authorities and global business interests currently developing the territory around their settlement. Part of this support is the construction of a community radio station, using the local vernacular of hand-made concrete blocks on a ground consisting of half a metre of compacted refuse on water and mud.



Fig 1: The waters edge site - Port Harcourt.

The student's task is to understand the 'economy of means' at work on site by working with Article 25 to design and test at full size appropriate structural innovations to support the new community building.

A report must capture the process and communicate to the community how to execute the design. The client here is an NGO, not the end user, however the particular needs and requirements are critically incorporated into extreme 'low-tech' which utilised compacted refuse using adapted plastic buckets to create simple waffle slabs to save on expensive cement to achieve the required support.



Fig 2: The client presentation at Article 25



Fig 3: 1:1 sample achieving 32% concrete saving utilising locally available material

"Overall, understanding the real needs of the people in Nigeria, and the necessity to adapt the construction of the foundations on a 1:1 scale, were proved to be the greatest challenges. These two points in the project were, the most important, as they brought out the practical problems that men and women on the Delta might have to deal with. If the project ended with the calculations and analysis of smaller models, such obstacles would have

passed unseen, failing if actually built on site"[3].

#### 4 Case study: Shelter for the 'Children's Garden'

**Context:** To support the activities of the children and parents the workshop has been commissioned to deliver a Yurt – a traditional Mongolian dwelling of lightweight construction for the garden. Funds for the materials are provided, and the task is to develop within a short timeframe a weather-tight yurt on a ready prepared ground.

Through a series of iterations and design briefings with the clients and users and health and safety officials, the team developed working parties to detail and execute the design.

Through the making of construction and rod drawings, and learning both woodworking and tailoring/ machining skills, the students delivered an operational Yurt and renewed canopy/lining to the sand play area, designed and built by UEL Students and Buro Happold in 2008.



Fig 1: client presentation.

"Dealing with a project that will be used by children demanded materials

of high specification. Our structure was going to be entirely covered by canvas, so the fabric needed to fulfil the health and safety requirements - proofed for rot resistance, water resistance and flame retardant" [4].



Fig 2: Assembly of the children's shelter.



Fig 3: The completed space.

## 5 The point of handover is the point of the project

The direct, unequivocal engagement of students with a building (noun) requires the parallel direct, unequivocal engagement with building (verb).

The point of handover is the point of the project. The moment that Stafford Beer has been waiting for, when variety management finally outputs clarity, that itself then

becomes part of a complex whole called 'place'. The student's efforts at control and management pass over to the custodianship of others. The feeling of giving over the project to the client is only possible within architectural education when running the Live Build. It is not like publishing a book. For a start, making places for people won't count as part of a University research submission.

## References

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